IN THE SPECIFICATION

Please replace the paragraphs beginning on page 7, line 20, and ending on page 9, line 16, with the following:

Figs. 1A-1D shows that native Reelin molecules form a large protein complex. (Fig. 1A) shows a sSchematic representation of the Reelin's primary structure. CR-50 antibody recognizes upstream of Reelin repeats. (Figs. 1B-1D) show Iimmunoblots with anti-Reelin antibody. (Fig. 1B) shows hHomogenates of *reeler* hererozygote (*rl/+*) and homozygote (*rl/rl*) cerebra (E18) which were run through SDS/PAGE. (Fig. 1C) shows hHomogenates of cerebra (E18) and cerebella (P5) of *reeler* heterozygotes and homozygotes which were separated by native PAGE. (Fig. 1D) shows Ssupernatants of cerebellar primary cultures of *reeler* heterozygote and homozygote (P5), which were loaded onto native PAGE gels.

a'

Figs. 2A-2F shows results from a cell adhesion assay indicating that Reelin molecules bind to each other. (Figs. 2A & 2B) show Iimmunostaining of *reelin*-transfected 293T cells with CR-50 antibody. When CR-50 was added to the living cells, punctate staining on the cell surface was observed (Fig. 2A), whereas cytoplasm was stained diffusely when CR-50 was added after the cells were fixed and permeablized (Fig. 2B). (Figs. 2C-2F) show results from Cell cell adhesion assays. (Fig. 2C) shows the results from an assay using Reelin-presenting cells on a Reelin-coated dish. (Fig. 2D) shows Reelin-presenting cells on a control-coated dish. (Fig. 2E) shows Ccontrol cells on a Reelin-coated dish. (Fig. 2F) shows Ccontrol cells on a control-coated dish. (Fig 2G) is a Hhistograms showing cell numbers that are normalized to (Fig. 2F), which was scored as 100. Numbers are the mean value of five independent experiments ± standard deviation (SD).

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Figs. 3A-3F shows that CR-50 antibody inhibits homophilic interaction of Reelin molecules. ~~(~~Figs.3A-3E) show ~~I~~inhibition of cell adhesion by CR-50 antibody. ~~(~~Fig. 3A~~)~~shows Reelin-presenting cells on a Reelin-coated dish. (Figs. 3B-3D) show Reelin-presenting cells on a Reelin-coated dish after incubation with 20, 50 and 200 μg/ml CR-50 antibody, respectively. ~~(~~Fig. 3E~~)~~ ~~-~~ is a Histograms showing cell numbers of each case (Figs. 3A-3D) that are normalized to ~~(~~Fig. 3A~~)~~. Numbers are the mean value of five independent experiments ± SD. ~~(~~Fig. 3F~~)~~ shows ~~I~~inhibition of Reelin assembly by CR-50 antibody. *reeler* heterozygote cerebellar (P5) cells were cultured in the presence of no mouse IgG (-), non-immunized mouse IgG, or CR-50 antibody. The supernatants of these cultures were separated by native PAGE and blotted with anti-Reelin.

Figs. 4A-4C shows that Reelin binds to the CR-50 epitope region in a cell adhesion assay. ~~(~~Fig. 4A~~)~~shows Reelin-presenting cells on a CR-50 epitope-coated dish (200 μg/ml). ~~(~~Fig. 4B~~)~~ shows Reelin-presenting cells on a control-coated dish. ~~(~~Fig. 4C~~)~~ is a ~~H~~histograms showing cell numbers in a cell adhesion assay on CR-50 epitope-coated dishes (200 or 50 μg/ml) that are normalized to the control.

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Figs. 5A-5D shows that CR-50 epitope fragments form a homopolymer. ~~(~~Fig. 5A~~)~~ shows the ~~E~~elution profile of gel filtration chromatography showing that CR-50 epitope fragments form a homopolymer with a molecular mass of more than 600 kDa at 0.15 M NaCl. ~~(~~Figs. 5B-5D~~)~~ show ~~T~~that the polymer is dissociated at a higher ionic strength [0.5 M NaCl (Fig. 5B); 0.75 M NaCl (Fig. 5C); 1.0 M NaCl (Fig. 5D)]. The polymer peak appears at an elution time of 7.7 min and a monomer peak at 15.2 min. V_0 indicates the void volume of column.

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Figs. 6A-6F shows structural analysis of CR-50 epitope polymer. ~~(~~Fig. 6A~~)~~shows the ~~A~~absorbance spectra of Congo red with CR-50 epitope polymer (a) and without CR-50 epitope polymer (b)~~ were observed~~. A red-shift in λ_{max} occurred when CR-50 epitope polymer was added. ~~(~~Fig. 6B~~)~~ shows ~~T~~the spectral difference between the polymer-containing solution and dye-only solution~~ was detected~~. ~~(~~Fig. 6C~~)~~shows the CD spectra of CR-50 epitope fragments at various NaCl concentrations~~ were observed~~. ~~(~~Figs. 6D-6F~~)~~ are ~~E~~electron micrographs of CR-50 epitope polymer by rotary shadowing method (Figs. 6D and 6E) or negative staining method (Fig. 6F). (Bar = 100 nm).

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